

Serial No. 10/518,212
Amdt. dated November 14, 2008
Reply to Final Office Action of August 20, 2008

PATENT
PU020291
Customer No. 24498

Remarks/Arguments

Introduction

The Office Action mailed on August 20, 2008 has been reviewed and carefully considered. The claims have not been amended herein. Claims 1-14 are now pending in this application.

Claim Rejections

Claims 1-14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,680,939 to Lydon et al. (hereinafter 'Lydon') in view of U.S. Patent No. 6,885,635 to Haq et al. (hereinafter 'Haq'). The Applicants respectfully disagree.

Lydon and Haq fail to disclose or suggest, at least, any one of the fourth, fifth and sixth links recited in claim 1, reproduced below:

a first router component, said first router component including a first routing engine having input and output sides and a second routing engine having input and output sides;

a second router component, said second router component including a third routing engine having input and output sides and a fourth routing engine having input and output sides;

a third router component, said third router component including a fifth routing engine having input and output sides and a sixth routing engine having input and output sides;

a first link, said first link coupling said input side of said first routing engine to said input side of said third routing engine;

a second link, said second link coupling said input side of said first routing engine to said input side of said fifth routing engine;

a third link, said third link coupling said input side of said third routing engine to said input side of said fifth routing engine;

a fourth link, said fourth link coupling said input side of said second routing engine to said input side of said fourth routing engine;

a fifth link, said fifth link coupling said input side of said second routing engine to said input side of said sixth routing engine; and

a sixth link, said sixth link coupling said input side of said fourth routing engine to said input side of said sixth routing engine;

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wherein said first, third and fifth routing engines and said second, fourth and sixth routing engines are arranged in respective fully connected topologies.

In support of the rejection of claim 1, the Examiner has noted that Lydon discloses three router components (e.g., 50, 60, 70) having routing engines and links between routing engines (see, e.g., Final Office Action, p. 2, para. 4 to p. 3, para. 1; p. 13, para. 3). In addition, the Examiner has admitted that Lydon does not disclose providing an additional routing engine for each router with additional links coupling additional routing engines such that they are arranged in a fully connected topology. (see, e.g., Final Office Action, p. 3, paragraph 1). To cure the deficiencies of Lydon, the Examiner has cited Haq, stating that Haq discloses the use of two redundant routing engines and that it would be obvious to add the additional routing engines of Haq to the router of Lydon (see, e.g., Final Office Action, p. 13, para. 3 to p. 14, para. 1). Furthermore, the Examiner has concluded that it would also be obvious to connect the additional routing engines of Haq with additional links in a similar manner in which the Lydon routing engines are connected (see, e.g., Final Office Action, p. 14, para. 1).

Firstly, the Applicants respectfully submit that Lydon does not disclose any links between routing engines. Indeed, Lydon does not explicitly disclose the use of routing engines at all. While, for expediency purposes, it is not disputed herein that a router of Lydon may inherently have a routing engine, Lydon does not teach that routing engines of different routers are coupled by links in a fully connected topology. Rather, Lydon simply discloses that routers themselves are connected by various links for input signal transmission (see, e.g., Lydon, FIG. 4). Secondly, although Haq discloses the use of an active routing engine and a backup routing engine within a single router, the combination of Haq with Lydon would merely result in a router that has two internal routing engines. The combination would not in any way affect external links between routers or their components. And the combination certainly would not result in a fully connected topology between routing engines of different routers. Thus, Lydon and Haq fail

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to disclose or suggest, at least, any one of the fourth, fifth and sixth links recited in claim 1.

Furthermore, the Examiner has not addressed the Applicants' previous remarks concerning claim 7. Claim 7 recites, inter alia:

A fully redundant linearly expandable broadcast router, comprising:
at least three broadcast router components, each of said at least three broadcast router components having a first router matrix and a second router matrix that is redundant of the first router matrix

It is respectfully submitted that neither Lydon nor Haq discloses or renders obvious the use of redundant router matrices. In support of the rejection, the Examiner has equated active and backup routing engines and processing components disclosed in Haq to redundant routing matrices (see, e.g., Final Office Action, p. 9, para. 5 to p. 10, para. 1). However, the routing engines and processing components are not router matrices. Rather, the routing engine of Haq is an internal control mechanism that formulates routing tables for internal routing (see, e.g., Haq, column 2, lines 56-67). Similarly, the processing component of Haq performs high level functions such as determining correct destination ports for input packets and storing forwarding tables (see, e.g., Haq, column 3, lines 11-21). Nowhere do Haq and/or Lydon disclose or remotely suggest redundant matrices of routing paths. Accordingly, Lydon and Haq, taken singly or in combination, do not render claim 7 unpatentable.

Lydon and Haq also fail to render claim 13 unpatentable, as the references fail to disclose or render obvious several features of claim 13:

providing first, second, third, fourth, fifth and sixth router matrices, each having input and output sides, wherein said second, fourth and sixth router matrices are respectively redundant of said first, third and fifth router matrices;

As discussed above, Lydon and Haq, taken singly or in combination do not disclose or render obvious at least one router component including at least one redundant routing matrix. Thus, claim 13 is patentable over the references.

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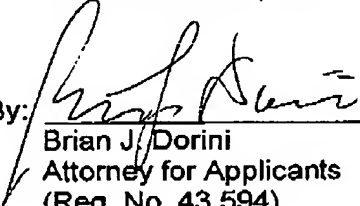
Moreover, claims 2-6, 8-12 and 14 are patentable over Lydon and Haq due at least to their dependencies on claims 1, 7 and 13, respectively.

Therefore, it is respectfully submitted that all pending claims are allowable over the cited references.

In view of the foregoing, the Applicants respectfully request that the rejections of the claims set forth in the Office Action of August 20, 2008 be withdrawn, that pending claims 1-14 be allowed, and that the case proceed to early issuance of Letters Patent in due course.

It is believed that no additional fees or charges are currently due. However, in the event that any additional fees or charges are required at this time in connection with the application, they may be charged to Applicant's representatives Deposit Account No. 07-0832.

Respectfully submitted,
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